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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,160	08/30/2001	Stiven A. Farquhar	9099.00	8616

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MICHAEL CHAN
NCR CORPORATION
1700 SOUTH PATTERSON BLVD
DAYTON, OH 45479-0001

EXAMINER

PAIK, STEVE S

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 09/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,160

Applicant(s)

FARQUHAR, STIVEN A.

Examiner

Steven S. Paik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 54 and 59-63 is/are rejected.
- 7) ☒ Claim(s) 55-58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 13, 2003 has been entered.

Response to Amendment

2. Receipt is acknowledged of the Amendment filed August 13, 2003. The Amendment includes cancellation of claims 27-53 and addition of claims 54-63.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 54 and 59-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohwa et al. (US 5,850,079) in view of Imai et al. (US 6,444,872).

Re claims 54, 62, and 63 Ohwa et al. discloses a card reader and with a foreign matter detection mechanism and a method of operating the same comprising:

a throat portion (card insertion portion 3a in Fig. 2) for receiving cards (2);

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a housing portion (card reader main device A) for containing a card read head (15 in Fig. 2 or 110 in Fig. 14);

a shutter arm (4) movable from a closed position to an open position to allow the card (2) to pass from the throat portion (3a) to the housing portion (A); and

a sweeping arm (59, 52-54 in Fig. 21 and col. 9, ll. 5-10) movable from one side of the throat (103a) portion to an opposite side of the throat portion (left to right or right to left) to detect any non-card obstruction in the throat portion (3a or 103a). The sweeping arm 59 scans the entire width of the throat portion 103a and the driving path 103b shown as two-dots broken line in Fig. 21. The sweeping arm comprises a thin wire, a support plate 52 and detectors 53 and 54 that are comprised of micro switches (col. 9, ll. 5-19). The sweeping mechanism shown in Fig. 21 is disposed between the throat portion (103a) and the housing portion (A). The sweeping arm includes a leading edge (the edge of scan member 59 facing the moving direction in accordance with the rotary shaft 48) and a hook portion disposed on the leading edge (see C in Fig. 21). The pair of detectors 53 and 54 detects the movement of the scan member traversing the entire width of the throat portion. When a foreign matter is detected by the detectors, it is cut by the cutter blade in a case the foreign matter is thin or soft. The cutting blade is included as a part of the sweeping arm function and communicates with the detectors closely.

The primary object of Ohwa's invention is to detect foreign matters such as a thin wire, a film, or the like inserted within a card reader to prevent card theft. Thus, his invention comprises a shutter for preventing foreign matter insertion and the like, a detection means for determining a condition of the shutter during a card reading operation and for providing an output signal of the determination and means responsive to the output signal for indicating that the shutter is an

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improper condition when foreign matter is inserted in the driving path (col. 1, ll. 32-45). The sweeping arm is disposed between the throat portion 103a and the housing portion (card reader main device A). As appreciated by an artisan of ordinary skill in the art, the foreign matter detected and cut by the cutting blades has to be collected at a specific place within the card reader module.

Although Ohwa et al. reference discloses a card reader module as discussed above, it is silent about a hook portion having a recessed area for enabling the hook portion to catch a non-card obstruction, maintain the caught non-card obstruction within the recessed area, and drag the caught non-card obstruction to a side of the throat portion when the sweeping arm moves from the one side of the throat portion to the other side of the throat portion.

Imai et al. disclose a card reader having a space for discharging foreign matter formed between the card guiding portions at both sides using nearly the entire space in the width direction between the card guiding portions (col. 1, ll. 45-52). The card guiding portions and the space (recess 62) for discharging foreign matter improve the card insertion and ejection process by removing the non-card obstruction from the card traveling path and collecting at a specific location. Furthermore, the space can be created without being disturbed by other mechanisms used for card insertion (col. 2, ll. 16-33).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the space (62) for catching discharged foreign matter found in the card traveling path, as taught by Imai et al. for the purpose of making the card insertion and ejection process with less interference with a foreign matter possibly situated

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in the card traveling path. Moreover, such modification could have been achieved without disturbing other parts of the card reader module.

Re claim 59, Ohwa et al. in view of Imai et al. disclose the card reader as recited in rejected claim 54 stated above, further comprising a resilient bias for biasing the hook portion (Figs. 4-6 and 11) so that the hook portion remains in contact with a card when the hook portion is deflected by (col. 4, lines 5-12) the card (2).

Re claim 60, Ohwa et al. disclose a self-service terminal (ATM) with a theft counter measure and a method of operating a motorized card reader module comprising:

a fascia defining a card entry/exit slot (a slot covers a card insertion portion 3a of a card reader in Fig. 2); and

a motorized card reader module (col. 6, line 65) in registration with the card entry/exit slot (103a), including a throat portion (card insertion portion 3a in Fig. 2) for receiving cards, a housing portion (card reader main device A) for containing a card read head (15), a shutter arm (4) movable from a closed position to allow a card to pass from the throat portion to the housing portion, and a sweeping arm (59, 52-54 in Fig. 21 and col. 9, ll. 5-10) movable from one side of the throat (3a; 103a) portion to an opposite side of the throat portion (left to right or right to left) to detect any non-card obstruction in the throat portion (103a) as the sweeping arm traverses a substantially entire width of the throat portion.

Although Ohwa et al. reference discloses a card reader module as discussed above, the reference is silent about a hook portion having a recessed area for enabling the hook portion to catch a non-card obstruction, maintain the caught non-card obstruction within the recessed area,

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and drag the caught non-card obstruction to a side of the throat portion when the sweeping arm moves from the one side of the throat portion to the other side of the throat portion.

Imai et al. disclose a card reader having a space for discharging foreign matter formed between the card guiding portions at both sides using nearly the entire space in the width direction between the card guiding portions (col. 1, ll. 45-52). The card guiding portions and the space (recess 62) for discharging foreign matter improve the card insertion and ejection process by removing the non-card obstruction from the card traveling path and collecting at a specific location. Furthermore, the space can be created without being disturbed by other mechanisms used for card insertion (col. 2, ll. 16-33).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the space (62) for catching discharged foreign matter found in the card traveling path, as taught by Imai et al. for the purpose of making the card insertion and ejection process with less interference with a foreign matter possibly situated in the card traveling path. Moreover, such modification could have been achieved without disturbing other parts of the card reader module.

Re claim 61, Ohwa et al. in view of Imai et al. disclose the self-service terminal as recited in rejected claim 60 stated above, further comprising sensor means (53, 54) for (i) detecting when the sweeping arm (59) is located at the one side of the card (left) entry/exit slot, and (ii) detecting when the sweeping arm is located at the opposite side (right) of the card entry/exit slot.

Allowable Subject Matter

5. Claims 55-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the closest prior art of record, Ohwa et al. (US 5,850,079); Imai et al. (US 6,446,872) taken alone or in combination of other references, does not teach or fairly suggest the claimed motorized card reader module comprising, among other things, a sweeping arm including a hook portion and the hook portion further including a cutting mechanism for cutting a non-card obstruction in the throat portion and a first sensor to detect if the cutting mechanism is damaged. Accordingly, one of ordinary skill in the art would not have been motivated to modify teachings of prior art to meet the claimed limitations as set forth in the present claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 703-308-6190. The examiner can normally be reached on Mon - Fri (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6893 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

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A handwritten signature in black ink, appearing to read "Steven Paik". The signature is fluid and cursive, with the first name "Steven" and last name "Paik" clearly distinguishable.

Steven S. Paik
Examiner
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ssp
September 4, 2003